Pakistan Journal of Nematology, 2013, Vol. 31 (1), 65-70

Evaluation of some black and yellow seed-rape against *Rotylenchulus reniformis* and other Tylenchids coinhabiting seed-rape field in Egypt

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Abstract

Thirty eight imported oil seed-rape cultivars were evaluated for their relative susceptibility against the reniform nematode, *Rotylenchulus reniformis* and other tylenchids under field conditions. Statistical differences ($P \leq 0.05$ and 0.01) in varieties were found in either final nematode populations or the yield components. The potential of each cultivar to support reproduction of the reniform nematode or other tylenchids was calculated in relation to that of Sedo cv or Semu DNK 86/233 cv, respectively which were regarded as check cultivars. The tested cultivars were classified for their susceptibility against *R. reniformis* as follows: Tower was rated as immune cultivar, while Drakkav, Gloda, Gloda Semu 250/84, Moneta Semu 249/84, Anima Semu 204/83, Semu DNK 235/84, Semu DNK 239/84, Semu DNK 240/84, Semu DNK 85/201, Semu 2080, PF 1/85, PF 2/85 and PF 550/86 were graded as highly resistant. Candle, Hanna, Silva, Duplo, Lirasol, Loras, Topas, Semu DNK 242/84, Semu DNK 246/84, Semu DNK 85/202, Semu DNK 264/84, Semu DNK 232/83 and Semu DN 205/82 were rated as resistant cultivars. Six cultivars graded as less susceptible viz., Global, Semu DNK 249/84, Semu DNK 248/84, Semu DNK 204/83, Semu DNK 232/84 and Semu DA 15/81 cultivars. Only PF 2886/85 cv was categorized as moderately susceptible. On the other hand, four cultivars viz., Sedo, Semu DNK 265/84, Semu DNK 206/84 and Semu DNK 86/233 were ranked as highly susceptible cultivars. It was observed that reproduction of nematode was favored on highly susceptible and susceptible cultivars but inhibited on resistant ones. Therefore, all tested cultivars showed great variability in their reaction to the nematode infection according to the host type. The different yield components of oil seed-rape varieties were also discussed. Finally, the differences among the tested cultivars should serve as a good resource for plant breeders and cropping systems to limit the loss due to the nematode infection.